

REMARKS

Claims 1, 4 – 10 and 12 – 15 are presented for reconsideration and further examination in view of the foregoing amendments and the following remarks.

In the outstanding Office Action, the Examiner rejected claims 1 and 9 under 35 U.S.C. §112, second paragraph as being indefinite; rejected claims 1, 4, 5, 7 and 14 under 35 U.S.C. §103(a) as being obvious over the combined teachings of U.S. Patent No. 6,466,694 to Kamada et al. (hereinafter referred to as “the Kamada et al. ‘694 patent”) and European reference no. EP 0 587 450 to Kazuyuki et al. (hereinafter referred to as “the Kazuyuki ‘450 et al. reference”); rejected claim 6 under 35 U.S.C. §103(a) as being obvious over the combined teachings of the Kamada et al. ‘694 patent and the Kazuyuki et al. ‘450 reference in view of U.S. Patent No. 5,717,794 to Koga et al. (hereinafter referred to as “the Koga et al. ‘794 patent”); rejected claim 8 under 35 U.S.C. § 103(a) as being unpatentable over the combined teachings of the Kamada et al. ‘694 patent and the Kazuyuki et al. ‘450 reference in view of U.S. Patent No. 4,785,296 to Tabata et al. (hereinafter referred to as “the Tabata et al. ‘296 patent”); and rejected claims 9, 10, 12, 13 and 15 under 35 U.S.C. § 103(a) as being unpatentable over the combined teachings of the Kamada et al. ‘694 patent and the Kazuyuki et al. ‘450 patent in view of U.S. Patent No. 6,043,823 to Kodaira et al. (hereinafter referred to as “the Kodaira et al. ‘823 patent”).

By this Response and Amendment,

the rejection under 35 U.S.C. §112, second paragraph has been traversed; and claims 1 and 9 have been amended to recite: “operation of the second judgment means being based on whether the first judgment means identifies the attribute as others and as amended the rejections thereto and the rejections to the claims dependent thereon have been traversed.”

Support for the amendments to claims 1 and 9 can be found in the originally filed application

at page 10, lines 3 – 10. Therefore, it is respectfully submitted that the above amendments do not introduce any new matter to this application within the meaning of 35 U.S.C. §132.

Rejections Under 35 U.S.C. §112, Second Paragraph

The Examiner rejected claims 1 and 9 as being indefinite, asserting that, with respect to the term “others,” the claims include elements not actually disclosed.

Response

By this Response and Amendment, independent claim 1 has been amended and, as amended, applicants respectfully traverse the Examiner’s rejection. Applicants assert that claims 1 and 9 are sufficiently definite because “others” is defined *in the claim* as “one of a photograph” and a “frame.” Furthermore, it is perfectly within the realm of the Applicants’ ability to act as a lexicographer, in which case the Examiner is invited to review page 14, lines 21-31 of the specification which was cited in Applicants’ response to the previous office action as providing support for the term “others,” and to review page 14, lines 12-31 of the original application in general.

Accordingly, Applicants respectfully request that the Examiner reconsider and withdraw the rejections.

Rejections Under 35 U.S.C. 103(a)

1. Claims 1, 4, 5, 7 and 14

The Examiner rejected claims 1,4, 5, 7, and 14 as being unpatentable over the combined teachings of the Kamada et al. ‘694 patent and the Kazuyuki et al. ‘450 reference.

Response

By this Response and Amendment, independent claim 1 has been amended and, as amended, Applicants traverse the rejection to claim 1.

To establish a *prima facie* case of obviousness, the Examiner must establish: (1) that some suggestion or motivation to modify the references exists; (2) a reasonable expectation of success; and (3) that the prior art references teach or suggest all of the claim limitations. *Amgen, Inc. v. Chugai Pharm. Co.*, 18 USPQ2d 1016, 1023 (Fed. Cir. 1991); *In re Fine*, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988); *In re Wilson*, 165 USPQ 494, 496 (CCPA 1970).

Each of the rejected dependent claims depends from amended independent claim 1. Independent claim 1 recites: “[a] document modification apparatus for modifying image data read by image input means, comprising: region extracting means for extracting a plurality of regions from the image data, each region being a unit to be modified; region selection means for selecting target regions to be modified from the plurality of regions through an operator; modification specifying means for specifying kinds of the modifications for the target regions selected by the region selection means through the operator; and modification image making means for making a modified image, based on the kinds of the modifications, in the regions in the image data selected by the region selection means, specified by the modification specifying means; wherein the region extracting means extracts rectangle regions as the target regions to be modified, and the region extracting means comprises a first judgment means for judging whether an attribute of the rectangle region is one of a ‘character’ and ‘ruled-line,’ and ‘others,’ projection means for taking a projection data in vertical and horizontal directions of the rectangle region of the image data, and a second judgment means for judging whether the attribute of the rectangle region, whose attribute has been judged by the first judgment means as ‘others,’ is one of a ‘table,’ a ‘photograph,’ and a ‘frame’ according to a

number of peaks detected from the projection data operation of the second judgment means being based on whether the first judgment means identifies the attribute as ‘others’.”

The Kamada et al. ‘694 reference discloses performing region identification of an input image. The type code of each region and the individual code of a recognition result are then displayed, so that a user can modify both of the results of the region identification and the recognition process at one time. The Kamada et al. ‘694 reference also discloses displaying an original image close to the recognition result.

The Kazuyuki et al. ‘450 reference shows a document image processing system comprising projecting means for taking a projection data in vertical and horizontal directions to judge a region whose attributes have not been judged to be “character” or “ruled line” is one of a “table,” “photograph” and a “frame.”

The Examiner asserts that the Kazuyuki et al. ‘450 reference shows judgment of a rectangle region whose attributes have not been judged to be “character” or “ruled line” to be one of “table,” “photograph” and a “frame.” However, this analogy falls short of meeting every feature of amended independent claim 1 as, in contrast to the presently claimed invention, neither the Kamada et al. ‘694 patent nor the Kazuyuki et al. ‘450 reference teaches or suggests “a second judgment means *operation being based on* whether the first judgment means identifies the attribute as others.” A second judgment means having such a dependent operability is not shown in either prior art reference.

The advantages to preventing operation of the second judgment means unless the first judgment means identifies an attribute as “others,” is that processing time is reduced when the first judgment means identifies an attribute as not being “others.” *See Present Application* at page 3, lines 5 – 13.

The Examiner has not shown where the Kamada et al. '694 patent and the Kazuyuki '450 reference teaches or suggests each of these features of amended independent claim 1. Therefore, claim 1 is asserted to be patentable over the cited references. Similarly, as dependent claims contain all of the limitations of the independent claim from which they depend, claims 4, 5, 7 and 14 are patentable over the cited references for at least the same reasons as amended claim 1.

Accordingly, Applicants request that the Examiner reconsider and withdraw the outstanding rejections.

2. Claim 6

The Examiner rejected claim 6 as being unpatentable over combined teachings of the Kamada et al. '694 patent and the Kazuyuki et al. '450 reference in view of the Koga et al. '794 patent.

Response

Applicants respectfully traverse the Examiner's rejection. The arguments above with respect to amended independent claim 1 are herein incorporated by reference.

The Koga et al. '794 patent discloses a document recognition system. The system disclosed in the Koga et al. '794 patent is primarily intended to correct errors occurring during document analysis. The Koga et al. '794 patent does not account for the deficiencies of Kamada et al. '694 patent and the Kazuyuki et al. '450 reference – the Examiner has no shown where the Koga et al. '794 patent teaches or suggests the “operation of the second judgment means being based on whether the first judgment means identifies the attribute as others.” As such, all of the limitations of claim 6 are neither taught nor suggested by the cited prior art.

Accordingly, Applicants respectfully request that the Examiner reconsider and withdraw

the rejection to claim 6.

3. Claim 8

The Examiner rejected claim 8 as being unpatentable over the combined teachings of the Kamada et al. '694 patent and the Kazuyuki et al. '450 reference in view of the Tabata et al. '296 patent.

Response

By this Response and Amendment, Applicants respectfully traverse the Examiner's rejection. The arguments with respect to claim 1 are herein incorporated by reference.

The Tabata, et al. '296 patent discloses a system for displaying image data. The Examiner cites the Tabata et al. '296 patent against the "resolution conversion means" limitation of claim 8. However, notwithstanding the reasons for the Examiner's citation, the Tabata et al. '296 patent does not account for the deficiencies of Kamada et al. '694 patent and the Kazuyuki et al. '450 reference – the Examiner has not shown where the Tabata et al. '296 patent teaches or suggests the "operation of the second judgment means being based on whether the first judgment means identifies the attribute as others." As such, all of the limitations of claim 8 are neither taught nor suggested by the cited prior art.

Accordingly, Applicants respectfully request that the Examiner reconsider and withdraw the rejection to claim 8.

4. Claims 9, 10, 12, 13 and 15

The Examiner rejected claims 9, 10, 12, 13 and 15 as being unpatentable over the Kamada et al. '694 patent and the Kazuyuki et al. '450 patent in view of the Kodaira et al. '823 patent.

Response

By the Response and Amendment, independent claim 9 has been amended and, as amended, applicants traverse the rejection to amended independent claim 9.

To establish a *prima facie* case of obviousness, the Examiner must establish: (1) that some suggestion or motivation to modify the references exists; (2) a reasonable expectation of success; and (3) that the prior art references teach or suggest all of the claim limitations. *Amgen, Inc. v. Chugai Pharm. Co.*, 18 USPQ2d 1016, 1023 (Fed. Cir. 1991); *In re Fine*, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988); *In re Wilson*, 165 USPQ 494, 496 (CCPA 1970).

Each of the dependent claims depends from amended independent claim 9. Amended Independent claim 9 recites: “[a] document modification apparatus for modifying image data read by image input means, comprising: region extracting means for extracting a plurality of regions from the image data, each region being a unit to be modified; automatic modification means for automatically selecting target regions to be modified from the plurality of regions, and for automatically modifying the selected target regions based on modifications that have been set in advance; and modification image making means for making an image modified image in the target regions selected by the automatic modification means based on the kinds of the modifications determined by the automatic modification means; wherein the region extracting means extracts rectangle regions as the target regions to be modified, and the region extracting means comprise a first judgment means for judging whether an attribute of the rectangle region is one of a ‘character’ and ‘ruled-line,’ and ‘others,’ projection means for taking a projection data in vertical and horizontal directions of the rectangle region of the image data, and a second judgment means for judging whether the attribute of the rectangle regions, whose attribute has been judged by the first judgment means as ‘others,’ is one of a ‘table,’ a photograph,’ and a

‘frame’ according to a number of peaks detected from the projection data, the operation of the second judgment means being based on whether the first judgment means identifies the attribute as ‘others’.”

The Kamada et al. ‘694 reference discloses performing region identification of an input image. The type code of each region and the individual code of a recognition result are then displayed, so that a user can modify both of the results of the region identification and the recognition process at one time. The Kamada et al. ‘694 reference also discloses displaying an original image close to the recognition result.

The Kazuyuki et al. ‘450 reference shows a document image processing system comprising projecting means for taking a projection data in vertical and horizontal directions to judge a region whose attributes have not been judged to be “character” or “ruled line” is one of a “table,” “photograph” and a “frame.”

The Kodaira et al. ‘823 patent discloses selectively editing “noise” out of a document, but does not teach editing a document in accordance with attributes of a rectangle region.

The Examiner asserts that the Kazuyuki et al. ‘450 reference shows judgment of a rectangle region whose attributes have not been judged to be “character” or “ruled line” to be one of “table,” “photograph” and a “frame.” However, this analogy falls short of meeting every feature of amended independent claim 9 as, in contrast to the presently claimed invention, neither the Kamada et al. ‘694 patent nor the Kazuyuki et al. ‘450 reference, nor the Kodaira et al. ‘823 patent teaches or suggests the *“operation of the second judgment means being based on* whether the first judgment means identifies the attribute as others.” A second judgment means having such a dependent operability is not shown in either prior art reference.

The advantages to preventing operation of the second judgment means unless the first

judgment means identifies an attribute as “others,” is that processing time is reduced when the first judgment means identifies an attribute as not being “others.” *See Present Application* at page 3, lines 5 – 13.

The Examiner has not shown where the Kamada et al. ‘694 patent, the Kazuyuki ‘450 reference or the Kodaira et al. ‘823 patent teaches or suggests each of the features of amended independent claim 9. Therefore, claim 1 is asserted to be patentable over the cited references. Similarly, as dependent claims contain all of the limitations of the independent claim from which they depend, claims 4, 5, 7 and 14 are patentable over the cited references for at least the same reasons as amended claim 1.

Accordingly, Applicants request that the Examiner reconsider and withdraw the outstanding rejections.

Similarly, as dependent claims contain all of the limitations of the independent claim from which they depend, claims 10 – 13 and 15 are patentable over the cited references for at least the same reasons as amended independent claim 9.

Accordingly, Applicants request reconsideration and withdrawal of the rejections thereto.

CONCLUSION

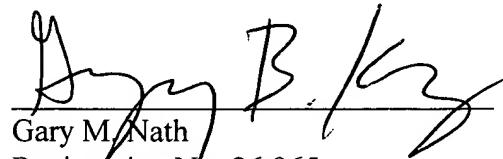
In light of the foregoing, Applicants submit that the application is now in condition for allowance. If the Examiner believes the application is not in condition for allowance, Applicants respectfully request that the Examiner contact the undersigned attorney if it is believed that such contact will expedite the prosecution of the application.

In the event this paper is not timely filed, Applicants petition for an appropriate extension of time. Please charge any fee deficiency or credit any overpayment to Deposit Account No. 14-0112.

Respectfully submitted,

NATH & ASSOCIATES PLLC

By:



Gary M. Nath
Registration No. 26,965
Gregory B. Kang
Registration No. 45,273
Derek Richmond
Registration No. 45,771
Customer No. 20259

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NATH & ASSOCIATES PLLC
1030 Fifteenth Street, N.W.
Sixth Floor
Washington, DC 20005
(202) 775-8383